



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,684	12/28/2005	Kiyonobu Agata	050840	4053
23850	7590	09/04/2008	EXAMINER	
KRATZ, QUINTOS & HANSON, LLP			LEE, LAURA MICHELLE	
1420 K Street, N.W.			ART UNIT	PAPER NUMBER
Suite 400			3724	
WASHINGTON, DC 20005			MAIL DATE	
			09/04/2008	
			DELIVERY MODE	
			PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,684	Applicant(s) AGATA ET AL.
	Examiner LAURA M. LEE	Art Unit 3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 7/15/2008.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-17 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-17 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 28 December 2005 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1668)
 Paper No(s)/Mail Date 12/28/2005/03/28/2006

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____

5) Notice of Informal Patent Application

6) Other: _____

DETAILED ACTION

Election/Restrictions

1. In the response to the restriction mailed on 7/15/2008, the applicant replied without traverse that claim 1 read on the elected species of A1 and B1. Upon further review the restriction between A1 and A2 is being withdrawn by the examiner, yet the restriction between B1 and B2 still stands. However, it is also noted that the more than just claim 1 reads on the elected species. Claims 2, 4-6, 8, 11, 13, 14, 16, and 17, are also elected, in addition to claim 1.
2. Claims 3, 7, 9, 10, 12 and 15 are thereby withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/15/2008.
3. It is also noted that even though claims 3,7,13 are withdrawn, if they would be brought back into they would be rejected under 112 2nd paragraph as noted below.

Drawings

4. Figures 10-14 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities:

The specification on pages 1 and 2, references "Patent Document 1" and "Patent Document 2" before introducing the documents that are being referenced. It is confusing to the reader to have the references addressed in this manner and it would be better to rearrange the location of the cited "Patent Document 1" and "Patent Document 2" from the bottom of page 2, to before the first instance of their mention on page 1.

Appropriate correction is required.

Claim Objections

6. Claims 1, 6,14-17 are objected to because of the following informalities:

Claim 1 recites in line 6 that "the grooving blade is formed along either edge in the thickness direction." It appears that it would be more accurate to state that --the grooving blade is formed along either edge along the thickness direction--as the grooving blade is formed along the top lengthwise edge of the fan and not parallel with the notching blade.

Claims 6 and 14 -17 should be changed from "wherein the width of the notching blade is shorter by 0.1 mm to 0.3mm than that of the cutting tool body" to -- wherein the

width of the notching blade is 0.1 mm to 0.3 mm less than the width of the cutting tool body--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 3, 7, 9, 10, 12, and 15 (if not restricted) would be rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3, 7, and 13 all recite that "the blade edge is disposed inside rather than outside in the radial direction with respect to the outer periphery of the cutting tool body." However, claim 1, previously states that "the blade edge is exposed to the outside rather than being in contact with the cutting tool body." The claim limitations of claims 3, 7 and 13 do not further limit the limitations of claim 1 and instead contradict the preceding set forth limitations.

9. Claims 1-2, 4-6, 8,11,14 and 16-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the outside" in line 11. There is insufficient antecedent basis for this limitation in the claim.

10. Claims 1-2, 4-6, 8,11,14 and 16-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites in line 5, that "the cutting tool body is formed in the shape of a fan." However, the term "shape of a fan" is a relative term which renders the claim indefinite, as there are many different types of fans and fan blades. The term "fan" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 2, 4 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilcox (U.S. Patent 3,036,486). In regards to claim 1, Wilcox discloses a cutting tool (Figure 3) for forming a slit on a sheet material, the cutting tool comprising: a cutting tool body (21,22,23), a grooving blade (i.e. 25/25) for forming a slit, and a notching blade (24) for forming an end portion of a slit, wherein the cutting tool body (21,22,23) is formed in the shape of a fan, the grooving blade is formed along either edge in the

thickness direction of the cutting tool body, the notching blade is provided with a semi-cylindrical blade edge (back edge of 24), and an attachment site (at the first bolt, 11) capable of being detachably attached to one end of the cutting tool body (via holder, 9), and the notching blade (24) is attached to one end of the cutting tool body in such a manner that an outer curved surface (back surface of 24) of the blade edge is exposed to the outside rather than being in contact with one end of the cutting tool body, and the attachment site (11) is configured such that the blade edge can be adjusted in the radial direction of the cutting tool body (along the other slots, 12, or by removing a body section).

In regards to claim 2, Wilcox discloses wherein the attachment site is provided with an oblong hole (slot,12), and the notching blade is attached to the cutting body by inserting a bolt (11), via the oblong hole(12), into a bolt hole (hole though 23, not numbered) formed in one end of the cutting tool body.

In regards to claims 4 and 8, Wilcox discloses wherein the cutting tool body (21,22,23) has a notch formed on one end (between blades 25/25), which forms a back face inclined at an angle of 5 to 30 to an end surface (22.5-degrees), and the notching blade (24) is attached to the back face.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-2, 4-6, 8, 11, 13, 14 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palamenti (U.S. Patent 3,211,066) in view of Wilcox (U.S. Patent 3,036,486). In regards to claim 1, Palamenti discloses a cutting tool (11) for forming a slit on a sheet material, the cutting tool comprising: a cutting tool body (32/33), a grooving blade (39) for forming a slit, and a notching blade (37) for forming an end portion of a slit, wherein the cutting tool body (32/33) is formed in the shape of a fan, the grooving blade (39) is formed along either edge in the thickness direction of the cutting tool body, the notching blade (37) is provided with a semi-cylindrical blade edge (back edge of 37), and an attachment site (at the first bolt, 34) capable of being detachably attached to one end of the cutting tool body (via holder, 13), and the notching blade (37) is attached to one end of the cutting tool body in such a manner that an outer curved surface (back surface of 37) of the blade edge is exposed to the outside rather than being in contact with one end of the cutting tool body. However, Palamenti does not disclose that the attachment site is configured such that the blade edge can be adjusted in the radial direction of the cutting tool body. However, attention is directed to Wilcox, that discloses an alternative rotary slotting apparatus. Wilcox discloses that appropriate to the given work, it may be required or desired to change the length of the cutting tool body. Wilcox discloses that this can be accomplished by providing the body on an elongated slot (12) such that the body can be extended or shortened as needed by adding or subtracting additional arcuate sections, and thus the blade edge can be adjusted in the radial direction. It similarly would have been obvious to one having

ordinary skill in the art at the time of the invention to have provided an arcuate slot on the Palamenti holder (13) as taught by Wilcox, instead of the fixed point bolt holes to be able to adjust the length of the cutting tool body depending upon the given work conditions, thus providing that the blade edge can be adjusted in the radial direction along the provided elongated slot.

In regards to claim 2, the modified device of Palamenti discloses wherein the attachment site is provided with an oblong hole (Wilcox slot,12), and the notching blade is attached to the cutting body by inserting a bolt (Wilcox, 11), via the oblong hole (Wilcox, 12), into a bolt hole (hole though 23, not numbered: Wilcox) formed in one end of the cutting tool body.

In regards to claims 4 and 8, the modified device of Palamenti discloses wherein the cutting tool body (32/33) has a notch (41) formed on one end, which forms a back face inclined at an angle of 5 to 30 to an end surface and the notching blade (37) is attached to the back face.

In regards to claims 5, 11, and 13 the modified device of Palamenti discloses wherein the notching blade (37) is provided with a notch (see Figure 3) at the tip of the blade.

In regards to claims 6, 14, 16 and 17 the modified device of Palamenti discloses wherein the width of the notching blade (37) is shorter by 0.1 mm to 0.3 mm than that of the cutting tool body (38); see Figure 3.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 4,819,534; U.S. Patent 4,167,884; U.S. Patent 3,237,501; U.S. Patent 2,117,220; U.S. Patent 5,890,409; U.S. Patent 5,144,874; U.S. Patent 3,003,403; U.S. Patent 3,772,953; U.S. Patent 5,174,184; U.S. Patent 3,518,922; U.S. Patent 5,394,779; U.S. Patent 5,344,377; U.S. Patent 5,297,462; U.S. Patent 5,336,154; U.S. Patent 2,718,828; U.S. Patent 3,664,240; U.S. Patent 3,880,056; U.S. Patent 3,575,091; U.S. Patent 3,353,460; U.S. Patent 4,725,261; U.S. Patent 3,236,137.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAURA M. LEE whose telephone number is (571)272-8339. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Laura M Lee/
Examiner, Art Unit 3724
/Boyer D. Ashley/
Supervisory Patent Examiner, Art Unit 3724